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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/619,470

07/16/2003

Tetsuo Asada

116245

7379

25944

7590

05/05/2005

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EXAMINER

MORRISON, THOMAS A

ART UNIT

PAPER NUMBER

3653

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/619,470	TETSUO ASADA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thomas A. Morrison	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>07/16/2003</u>  | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 2-4, 6, 8-10 and 12-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 2 and 8 and their dependent claims, it is unclear what is meant by the recited "relatively high coefficient of friction" and the recited "relatively low coefficient of friction".

Claim 4 recites the limitation "the slidable distance" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the feed operation" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the slidable distance" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the feed operation" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 13 and its dependent claims, it is unclear what is meant by the recited "predetermined operating conditions".

Claim 18 recites the limitation "the at least one member" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 7, 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,989,238 (McCarthy et al.). In particular, McCarthy et al. discloses all of the limitations of claims 1, 2, 4, 7, 8 and 10.

Regarding claim 1, Figs. 2-5 show a sheet-supply device for supplying sheets from a stack of sheets one at a time in a sheet feed direction, the sheet-supply device including

a hopper portion (114) that has an inclined wall (104) for holding a stack of sheets in an inclined position and a lower edge receiving portion (near 142) for receiving lower edges of the sheets;

a sheet feed mechanism that includes a sheet-supply roller (130) for supplying a topmost sheet from the stack of sheets loaded on the hopper portion (114);

a first friction member (138), that is provided at a position near a lower end (Fig. 2) of the inclined wall (104) of the hopper portion (114) and corresponding to a position where the sheet-supply roller (130) is provided, slidably movable along the inclined wall (104) between a normal position where the friction member is located during a normal sheet feed operation, and a second position upstream of the normal position in the

sheet feed direction. In particular, column 6, lines 48-52 disclose that the first friction member (138) can be adjusted. Accordingly, it meets the limitations of claim 1.

Regarding 7, Figs. 2-5 show a printing device having a sheet-supply device for supplying sheets from a stack of sheets one at a time in a sheet feed direction, the sheet-supply device including

a hopper portion (114) that has an inclined wall (104) for holding a stack of sheets in an inclined position and a lower edge receiving portion (near 142) for receiving lower edges of the sheets;

a sheet feed mechanism that includes a sheet-supply roller (130) for supplying a topmost sheet from the stack of sheets loaded on the hopper portion (114);

a first friction member (138), that is provided at a position near a lower end of the inclined wall (104) of the hopper portion (114) and corresponding to a position where the sheet-supply roller (130) is provided, slidably movable along the inclined wall (104) between a normal position where the friction member (138) is located during a normal sheet feed operation, and a second position upstream of the normal position in the sheet feed direction. As explained above in the rejection of claim 1, the first friction member (138) is adjustable.

Regarding claims 2 and 8, the first friction member (138) includes a pad portion (top portion) having a relatively high coefficient of friction and a base portion (138) having a relatively low coefficient of friction, and wherein the base portion is disposed slidably along the inclined wall (104) of the hopper portion (114).

Regarding claims 4 and 10, in as much as the slidable distance of the first friction member of the instant application is longer than or equal to a distance that the fed sheet is conveyed upstream in the sheet feed direction after a trailing edge of the sheet is released from the sheet-supply roller in the sheet feed operation, the first friction member (138) of McCarthy et al. also meets this limitation. More specifically, the positioning of the first friction member (138) relative to the pickup roller (130) of McCarthy et al. appears to be substantially similar to the positioning of the first friction member relative to the pickup roller of the instant application.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCarthy et al. In particular, providing a pad portion with a friction coefficient having a value as set forth in claims 3 and 9 is an obvious matter of design choice within the skill of one of ordinary skill in the art.

4. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCarthy et al. as applied to claims 1 and 7 above, and further in view of U.S. Patent No. 6546,210 (Nakamura). McCarthy et al. discloses all of the limitations of claims 5 and 11, except for a second friction member.

Figs. 16 and 17 of Nakamura show that it is well known to provide a hopper portion with an extension (45e) at the upper portion of the hopper, in order to accommodate long sheets. This extension (45e) applies friction to the paper and is located at the top of the hopper. As such, it can be considered to be a second friction member as set forth in claims 5 and 11. It would have been obvious to one of ordinary skill in the art at the time of the invention, to provide the McCarthy et al. hopper with a second friction member (an extension) at the top of the hopper, in order to accommodate long sheets, as shown in Nakamura.

5. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,502,816 (Innoue et al.) in view of U.S. Patent No. 6,546,210 (Nakamura). In particular, Innoue et al. in view of Nakamura meets all of the limitations of claims.

Regarding claim 13, Figs. 1-21 of Innoue et al. show a sheet supply device for a printing device, including

a paper hopper (1b) having a bottom surface (1b),

an inclined sheet receiving surface (5), and

a first friction member (2B) slidably received on the inclined sheet receiving surface (5), the first friction member (2B) slideable in an up and down direction relative to the printing device; and

a sheet feed mechanism including a sheet feed roller (7), wherein the first friction member (2B) is normally located at a first position opposing the sheet feed roller with

the sheets therebetween and takes a second position upwardly of the first position under predetermined operating conditions. However, Innoue et al. does not specifically show a pair of adjustable sheet side edge guides as claimed.

Fig. 16 of Nakamura shows that it is well known to provide a sheet supply device for printing device with a pair of adjustable side edge guides (44e and 44e), to guide the widthwise position of cut sheets. See column 15, lines 25-35 of Nakamura. It would have been obvious to one of ordinary skill in the art at the time of the invention, to provide the Innoue et al. apparatus with adjustable side guides, to guide the widthwise position of sheets, as taught by Nakamura.

Regarding claim 14, the first friction member (2B) of Innoue et al. has a surface that engages a sheet. Providing a first friction member with the claimed coefficient of friction in an obvious matter of design choice within the skill of one of ordinary skill in the art.

Regarding claim 15, Fig. 6 of Innoue et al. shows a second friction member (2A) mounted to the inclined sheet receiving surface (5) above the first friction member (2B).

6. Claims 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,502,816 (Innoue et al.) in view of U.S. Patent No. 6,546,210 (Nakamura) as applied to claim 13 above, and further in view of U.S. Patent No. 5,615,874 (Parthasarathy et al.). Innoue et al. in view of Nakamura discloses all of the limitations of claim 16, except for the third friction member.




Parthasarathy et al. discloses that it is well known to provide a friction member on a bottom surface of a paper hopper (20) in order to provide friction to resist movement of a stack of sheets during separation. See column 3, lines 16-25. It would have been obvious to one of ordinary skill in the art at the time of the invention, to provide the Innoue et al. sheet supply device with a friction member on the bottom surface of the hopper in order to provide friction to resist movement of a stack of sheets during separation, as taught by Parthasarathy et al.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on (571) 272-6944. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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